State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-21-207-1

Relating to Certification of New Heavy-Duty Engines and Vehicles

CUMMINS ENGINE COMPANY, INC.

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following 1998 model-year Cummins Engine Company, Inc. diesel-cycle engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Fuel Type: Diesel

Engine Family	Engine Displacement Liters	(Cubic Inches)	Exhaust Emission Control Systems and Special Features
WCEXH0855NAA (093A1)	14.0	(855)	Turbocharger Charge Air Cooler Powertrain Control Module

Engine models and codes are listed on attachments.

The following are the certification exhaust emission standards for this engine family in grams per brake horsepower-hour:

Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
1.3	15.5	4.0	0.10

The following are the certification exhaust emission values for this engine family in grams per brake horsepower-hour:

Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
0.4	1.0	3.8	0.09

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

BE IT FURTHER RESOLVED: That the aforementioned engine family has been conditionally certified subject to the following conditions:

1. Any engine which employs a defeat device shall not be covered by this Executive Order.

2. Within 120 days following the issuance of Executive Order A-21-207, the manufacturer must show cause, to the satisfaction of the Executive Officer or his designee, that the strategy for fuel injection timing, including timing during the fuel economy mode, is not a defeat device.

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 11th day of May 1998.

R. B. Summerfield, Chief
Mobile Source Operations Division

LARGE ENGINE MODEL SUMMARY

10/28/97

Manufacturer: **Cummins Engine Company, Inc.**

Process Code: **New Submission**

EPA Engine Family: **WCEXH0855NAA**

Manufacturer Family Name: **093A1**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
CPL2391								
FR10134	N14-525E+	525@1800	288	175.1	1850@1200	332	134.4	PCM, TC, CAC
FR10133	N14-525E+	525@1800	288	175.1	1850@1200	332	134.4	PCM, TC, CAC
FR10132	N14-525E+	525@1800	288	175.1	1590@1200	280	113.2	PCM, TC, CAC
FR10140	N14-525E+	525@1800	288	175.1	1590@1200	280	113.2	PCM, TC, CAC
FR10131	N14-500E+	505@1800	272	165.3	1750@1200	312	126.2	PCM, TC, CAC
FR10130	N14-500E+	505@1800	272	165.3	1750@1200	312	126.2	PCM, TC, CAC
FR10129	N14-500E+	505@1800	272	165.3	1650@1200	294	126.2	PCM, TC, CAC
FR10128	N14-500E+	505@1800	272	165.3	1650@1200	294	126.2	PCM, TC, CAC
FR10139	N14-500E+	511@1800	277	168.2	1575@1200	280	113.3	PCM, TC, CAC
FR10127	N14-460E+	480@1800	255	154.9	1650@1200	294	126.2	PCM, TC, CAC
FR10126	N14-460E+	480@1800	255	154.9	1650@1200	294	126.2	PCM, TC, CAC
FR10138	N14-460E+	480@1800	255	154.9	1550@1200	276	111.7	PCM, TC, CAC
FR10125	N14-460E+	480@1800	255	154.9	1550@1200	276	111.7	PCM, TC, CAC
FR10124	N14-460E+	480@1800	255	154.9	1500@1200	263	106.5	PCM, TC, CAC
FR10123	N14-435 ESP+	435@1800	229	138.8	1550@1200	276	111.7	PCM, TC, CAC
FR10122	N14-435 ESP+	435@1800	229	138.8	1550@1200	276	111.7	PCM, TC, CAC
FR10121	N14-435 ESP+	435@1800	229	138.8	1550@1200	276	111.7	PCM, TC, CAC
FR10120	N14-435E+	450@1800	237	143.8	1650@1200	294	126.2	PCM, TC, CAC
FR10119	N14-435E+	450@1800	237	143.8	1650@1200	294	126.2	PCM, TC, CAC
FR10137	N14-435E+	450@1800	237	143.8	1550@1200	276	111.7	PCM, TC, CAC
FR10118	N14-435E+	450@1800	237	143.8	1550@1200	276	111.7	PCM, TC, CAC
FR10117	N14-435E+	435@1800	229	138.8	1550@1200	276	111.7	PCM, TC, CAC
FR10116	N14-435E+	448@1800	236	143.3	1450@1200	258	104.5	PCM, TC, CAC
FR10115	N14-435E+	448@1800	236	143.3	1450@1200	258	104.5	PCM, TC, CAC
FR10114	N14-435E+	435@1800	229	138.8	1450@1200	258	104.5	PCM, TC, CAC

A-21-207

LARGE ENGINE MODEL SUMMARY

3/4/98

Manufacturer: **Cummins Engine Company, Inc.** Process Code: **Running Change**

EPA Engine Family: **WCEXH0855NAA** Manufacturer Family Name: **093A1**

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
CPL2391								
FR10205	N14-435 ST2	435@1800	229	138.8	1450@1200	258	104.5	PCM,TC, CAC
FR10225		505@1800	272	165.3	1650@1200	294	119.0	PCM,TC, CAC
FR10226		505@1800	272	165.3	1650@1200	294	119.0	PCM,TC, CAC
FR10227		505@1800	272	165.3	1650@1200	294	119.0	PCM,TC, CAC
FR10228		505@1800	272	165.3	1650@1200	294	119.0	PCM,TC, CAC
FR10206	N14-460 ST2	460@1800	247	149.7	1650@1200	294	119.0	PCM,TC, CAC
FR10198	N14-435E+	435@1800	229	138.8	1450@1200	258	104.5	PCM,TC, CAC
FR10199	N14-435E+	435@1800	229	138.8	1550@1200	276	111.7	PCM,TC, CAC
FR10200	N14-435 ESP+	450@1800	237	143.8	1650@1200	294	119.0	PCM,TC, CAC
FR10201	N14-460E+	480@1800	255	154.9	1650@1200	294	119.0	PCM,TC, CAC
FR10202	N14-500E+	505@1800	272	165.3	1650@1200	294	119.0	PCM,TC, CAC
FR10203	N14-500E+	505@1800	272	165.3	1750@1200	312	126.2	PCM,TC, CAC
SC10255		435@1800	229	138.8	1650@1200	294	126.2	PCM,TC, CAC
SC10268		460@1800	247	149.7	1850@1200	332	134.4	PCM,TC, CAC
SC10256		450@1800	237	143.8	1750@1200	312	126.2	PCM,TC, CAC
SC10257		480@1800	255	154.9	1750@1200	312	126.2	PCM,TC, CAC
SC10258		505@1800	272	165.3	1850@1200	332	134.4	PCM,TC, CAC

A-21-207-1